

**AMENDMENTS TO THE CLAIMS:**

*Please amend the claims as set forth below and add new claims 68-70.*

1.     *(Currently Amended)* An analytical device comprising a porous material that permits liquid to migrate therein, the device comprising in the migration direction:
  - (i) a first zone onto which a sample suspected of ~~containing~~ including an analyte to be assayed can be applied,
  - (ii) a second zone ~~incorporating~~ comprising a non-immobilised molecule capable of specifically binding to the analyte, said non-immobilised molecule ~~is provided with~~ including a detectable label,
  - (iii) a third zone capable of retarding the rate of migration of the sample and the non-immobilised molecule, and
  - (iv) a fourth zone ~~incorporating~~ comprising in at least a part of the fourth zone ~~an immobilised state~~ the same type of analyte as the one to be assayed or an analogue thereof in an immobilised state, being which is capable of specifically binding to the non-immobilised molecule.
2.     *(Original)* A device according to claim 1 wherein the first zone and the second zone are overlapping.
3.     *(Original)* A device according to any of the preceding claims wherein the second zone and the third zone are overlapping.

4. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the third zone and the fourth zone are overlapping.
5. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the device comprises a fifth zone into which a sample not detained during migration may be adsorbed.
6. *(Original)* A device according to claim 5 wherein the fourth zone and the fifth zone are overlapping.
7. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the second zone comprises ~~incorporating~~ a non-immobilised second molecule capable of binding to a compound different from the analyte to be assayed and incapable of specifically binding to the analyte to be assayed, said second molecule is provided with a detectable label.
8. *(Currently Amended)* A device according to claim 7 wherein the fourth zone ~~incorporating~~ includes, in at least a part of the fourth zone in an immobilised state a compound different from the analyte to be assayed and capable of binding the non-immobilised second molecule, said compound is incapable of binding specifically to the non-immobilised molecule capable of specifically binding to the analyte.
9. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the non-immobilised molecule in the second zone is selected from the group consisting of antibodies, ~~and~~ receptors and a combination thereof.

10. *(Currently Amended)* A ~~method~~ device according to ~~any of the preceding claims~~ claim 5 wherein the first zone, the second zone, the third zone, the fourth zone and the fifth zone ~~is comprises~~ comprised of a porous material, ~~said porous material is selected from the group consisting of a nitrocellulose membrane, cellulose, a polymer, such as nylon, polyvinylidene fluoride, or latex, glass fibre, woven fibres, non-woven fibres and a chromatographic gel membrane.~~ providing that each of the first zone, the second zone, the third zone, the fourth zone or the fifth zone is comprised of the same or different porous material as at least one of the remaining zones.

11. *(Currently Amended)* A ~~method~~ device according to claim 10 wherein the average pore size of the porous material is in the range of ~~10-10,000~~ 10-10,000 nm.

12. *(Currently Amended)* A ~~method~~ device according to ~~any of claims claim 10-11~~ claim 10 wherein the capacity of the porous material to bind proteins is in the range of 1-400  $\mu\text{g}/\text{cm}^2$ .

13. *(Currently Amended)* A ~~method~~ device according to ~~any of claim 10-12~~ wherein the capillary flow-rate of the porous material is in the range of 50-250 sec/4 cm.

14. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the analyte or analogue ~~is being~~ immobilised to the fourth zone through a spacer molecule.

15. *(Currently Amended)* A device according to claim 14 wherein the spacer molecule ~~is selected from the group consisting of~~ includes a peptide, a polypeptide and or a protein.

16. *(Currently Amended)* A device according to ~~any of the claims~~ claim 14 ~~or 15~~ wherein the spacer molecule is bovine serum albumin.

17. *(Currently Amended)* A device according to ~~any of the claims~~ claim 15 ~~or 16~~ wherein the spacer molecule and the analyte or analogue being immobilised to the fourth zone ~~is~~ are coupled using CMO and/or HMS.

18. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the capability of retarding the sample and the ~~specific binding~~ non-immobilised molecule of the third zone is provided by changing the length of the porous material used in the third zone, changing the porosity of the porous material, ~~and/or~~ adding at least one substance or a combination thereof.

19. *(Currently Amended)* A device according to claim 18 wherein the sample and the ~~specific binding~~ non-immobilised molecule is retarded by changing the length of the third zone relative to the length of the first, second and fourth zones.

20. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the third zone ~~constitute~~ comprises 1-99% of the porous material used in the first zone, second zone, third zone and fourth zone.

21. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the device further comprises a calibration zone.
22. *(Original)* A device according to claim 21 wherein the calibration zone is located downstream from the fourth zone and upstream from the fifth zone.
23. *(Original)* A device according to ~~claims~~ claim 20 or 21 wherein the calibration zone has immobilised thereon polyclonal or monoclonal antisera specific for the labeled non-immobilised molecule capable of binding the analyte to be assayed.
24. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 5 wherein at least one of the first, zone, the second zone, the third zone, the fourth zone or the fifth zone ~~incorporating~~ includes at least one ancillary compound capable of improving the flow of the liquid sample.
25. *(Currently Amended)* A device according to claim 24 wherein the at least one ancillary compound is a liquid.
26. *(Currently Amended)* A device according to ~~any of claims~~ claim 24 or 25 wherein the ancillary compound decreases non specific binding of the analyte and non specific binding of the non-immobilised ~~specific-binding~~ molecule.
27. *(Currently Amended)* A device according to ~~any of the claims~~ claim 24-26 24 wherein the ancillary compound provides a fast, substantially consistent and quantitative release of the non-immobilised ~~specific-binding~~ molecule.

28. *(Currently Amended)* A device according to ~~any of the claims~~ claim 24-26 24 wherein the ancillary compound provides low affinity for protein binding.
29. *(Currently Amended)* A device according to ~~any of the claims~~ claim 24-28 24 wherein the ancillary compound provides low retention of triglyceride rich samples.
30. *(Currently Amended)* A device according to ~~any of the claims~~ claim 24-29 24 wherein the ancillary compound decreases the viscosity of the sample.
31. *(Currently Amended)* A device according to ~~any of the claims~~ claim 27-30 24 wherein the ancillary compound ~~contains~~ comprises chemical constituents ~~selected from the group consisting of~~ including water, surfactant, salt, acid, base, metals, sugar, proteins and or lipid.
32. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein the device comprises a solid support.
33. *(Currently Amended)* A device according to ~~any of the preceding claims~~ claim 1 wherein said ~~device~~ device is provided in the form of a dry stick.
34. *(Currently Amended)* An appliance carrying a multiplicity of the ~~device~~ devices according to any of claims ~~1-33~~ 1, 5, 21 or 24.
35. *(Original)* An appliance according to claim 34 wherein an automatic, a semi-automatic and or a continuous system is provided.

36. *(Currently Amended)* An appliance according to ~~any of claims 34 or~~ claim 35 wherein the appliance is a strip.

37. *(Currently Amended)* A method for assaying an analyte in a sample, said method comprising ~~the steps of:~~

- (i) applying the sample suspected of containing an analyte to a first zone,
- (ii) permitting the sample to migrate through a second zone incorporating a non-immobilised molecule capable of specifically binding to the analyte, said non-immobilised molecule ~~is provided with~~ including a detectable label,
- (iii) permitting the sample to migrate through a third zone capable of retarding the rate of migration of the sample and the non-immobilised molecule, and
- (iv) permitting the sample to migrate through a fourth zone ~~incorporating~~ comprising in at least a part of the fourth zone ~~an immobilised state~~ the same type of analyte as the one to be assayed or an analogue thereof, in an immobilised state, being which is capable of specifically binding to the non-immobilised molecule.

38. *(Original)* A method according to claim 37 wherein at least one ancillary compound capable of improving the flow of the sample is added.

39. *(Currently Amended)* A method according to claim 37 wherein at least one ancillary compound is incorporated into at least one of the first zone, the second zone, the third zone or the fourth zone.
40. *(Currently Amended)* A ~~device~~ method according to ~~claims claim 38-39~~ 38 wherein the ancillary compound decreases non-specific binding of the analyte and non-specific binding of the non-immobilised ~~specific binding~~ molecule.
41. *(Currently Amended)* A ~~device~~ method according to ~~any of claims claim 38-40~~ 38 wherein the ancillary compound provides a ~~fast,~~ substantially consistent and quantitative release of the non-immobilised specific binding molecule.
42. *(Currently Amended)* A ~~device~~ method according to ~~any of claims claim 38-41~~ 38 wherein the ancillary compound provides low affinity for protein binding.
43. *(Currently Amended)* A ~~device~~ method according to ~~any of claims claim 38-42~~ 38 wherein the ancillary compound provides low retention of triglyceride rich samples.
44. *(Currently Amended)* A ~~device~~ method according to ~~any of claims claim 38-43~~ 38 wherein the ancillary compound decreases the viscosity of the sample.
45. *(Currently Amended)* A ~~device~~ method according to ~~any of claims claim 38-44~~ 38 wherein the ancillary compound ~~contains~~ comprises chemical constituents selected from the group consisting of water, surfactant, salt, acid, base, metals, sugar, proteins and lipid.



46. *(Currently Amended)* A method according to ~~any of claims~~ claim 37-45 37 wherein the analyte to be assayed is a steroid selected from the group consisting of a progestagen, an estrogen and an androgen.
47. *(Original)* A method according to claim 46 wherein the progestagen to be assayed is progesterone.
48. *(Currently Amended)* A method according to claim 47 wherein the sample to be assayed ~~is containing~~ comprises 0-50 ng/ml of progesterone.
49. *(Currently Amended)* A method according to ~~any of claims~~ claim 37-48 37 wherein the ~~specific binding~~ non-immobilised molecule is selected from the group consisting of antibodies and receptors.
50. *(Original)* A method according to claim 49 wherein the antibodies are monoclonal antibodies.
51. *(Currently Amended)* A method according to ~~any of claims~~ claim 37-50 69 wherein the first zone, the second zone, the third zone, the fourth zone and the fifth zone ~~is comprises~~ comprised of a porous material, ~~said porous material~~ is selected from the group consisting of a nitrocellulose membrane, cellulose, a polymer ~~such as nylon, polyvinylidene fluoride or latex~~, glass fibre, woven fibres, non-woven fibres and a chromatographic gel membrane, providing that each of the first zone, the second zone, the second zone, the third zone, the fourth zone, or the fifth zone is comprised of the same or different porous material as at least one of the remaining zones.

52. *(Currently Amended)* A method according to claim 51 wherein the average pore size of the porous material is in the range of ~~10-10,000~~ 10-10,000 nm.

53. *(Currently Amended)* A method according to ~~any of claims~~ claim 51-52 51 wherein the capacity of the porous material to bind proteins is in the range of 1-400  $\mu\text{g}/\text{cm}^2$ .

54. *(Currently Amended)* A method according to ~~any of claims~~ claim 51-53 51 wherein the capillary flow-rate of the porous material is in the range of 50-250 sec/4 cm.

55. *(Currently Amended)* A method according to ~~any of claims~~ claim 37-54 37 wherein the detectable label is selected from the group consisting of dyes, enzymes, fluorescent compounds, chemiluminescent compounds, radioactive labels and metals.

56. *(Original)* A method according to claim 55 wherein the detectable label is selected from the group consisting of gold, silver, carbon, fluorescent latex beads and dyed latex beads.

57. *(Currently Amended)* A method according to ~~any of claims~~ claim 37-56 37 wherein the assay time is less than 15 min.

58. *(Currently Amended)* A method according to ~~any of claims~~ claim 37-57 37 wherein the sample to be assayed is mammalian physiological fluid.

59. *(Currently Amended)* A method according to claim 58, wherein the mammalian physiological fluid to be ~~tested~~ assayed is selected from a the group consisting of milk

samples, urinary samples, blood samples and saliva samples.

60. *(Currently Amended)* A method according to ~~any of the claims~~ claim 58-59 58 wherein the mammal is a cow or a human.

61. *(Currently Amended)* A method according to ~~any of the claims~~ claim 37-61 37 , wherein, utilizing a device ~~as described in claims~~ according to claim 1-32 1 and or an appliance ~~as described in~~ according to ~~claims 33-35~~ claim 34 is used.

62. *(Currently Amended)* A method according to ~~any of the claims~~ claim 37-61 37 wherein the capability of retarding the sample and the non-immobilised ~~specific binding~~ molecule of the third zone is provided by changing the length of the porous material used in the third zone, changing the porosity of the porous material, ~~and/or~~ adding at least one substance or a combination thereof.

63. *(Currently Amended)* A ~~device~~ method according to claim 62 wherein the sample and the ~~specific binding~~ non-immobilised molecule is retarded by changing the length of the third zone relative to the length of the first, second and fourth zones.

64. *(Currently Amended)* A ~~device~~ method according to ~~any of the claims~~ claim 37-63 37 wherein the third zone ~~constitute~~ comprises 1-99% of the porous material used in the first zone, the second zone, the third zone and the fourth zone.

65. *(Currently Amended)* A ~~device~~ method according to ~~any of the claims~~ claim 37-64 37 wherein the ~~device~~ method further comprises passing the sample to a calibration zone.

66. *(Currently Amended)* A ~~device~~ method according to claim 65 ~~69~~ wherein the method further comprises passing the sample to a calibration zone ~~is located~~ downstream from the fourth zone and upstream from the fifth zone.

67. *(Currently Amended)* A ~~device~~ method according to ~~claims~~ claim 65 ~~or 66~~ wherein the calibration zone has immobilised thereon polyclonal or monoclonal antisera specific for the labeled non-immobilised molecule capable of binding the analyte to be assayed.

68. *(New)* A device according to claim 10 wherein the polymer is nylon, polyvinylidene fluoride or latex.

69. *(New)* A method according to claim 37 further comprising passing a sample not detained during migration to a fifth zone wherein the sample is absorbed.

70. *(New)* A method according to claim 51 wherein the polymer is nylon, polyvinylidene fluoride or latex.